

SECTION 16120

WIRE AND CABLE - 600 VOLT AND BELOW

PART 1 - GENERAL (NOT APPLICABLE)

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Acceptable manufacturers:
 - 1. Splices and taps for smaller than No.6 AWG wire:
 - a. Base:
 - 1) 3M.
 - 2) Ideal Electric.
 - 3) Heyco Molded Products.
 - 4) Elastimold.
 - 5) Buchanan Construction Products.
 - 2. Other manufacturers desiring approval comply with Document 00440.
- B. Wire for 600 volts and below: Single conductor, soft drawn, copper wire with 600 volt insulation, UL listed.
 - 1. For feeders and branch circuits: Type THWN/THHN or XHHW.
 - 2. For exterior feeder and branch circuits: Type XHHW.
 - 3. For branch circuits served by GFCI circuit breakers: Type XHHW.
 - 4. Use no wire smaller than No.12 AWG, except as follows:
 - a. Smaller size wire may be used only where specifically indicated.
 - b. No.14 AWG may be used for pilot control and signal circuits.
 - 5. Size conductors to match over current protective device unless larger conductors are indicated.
 - 6. No.10 and smaller wire: Solid conductor.
- C. Splices and taps for smaller than No.6 AWG wire:
 - 1. 3M, "Scotchlok" or "Hyflex".
 - 2. Ideal "Wingnut" or "Wirenut".
 - 3. Heyco.
 - 4. Elastimold insulated conical spring-type connectors.
- D. Splices and taps for No.6 AWG wire and larger: Use compression connectors with prestretched insulation to equal insulation of wire being spliced.
- E. Splices and taps - General: Do not make splices and taps with crimp or indenter-type connectors.
- F. Pulling lubricant: Do not use cable pulling lubrication compound containing petroleum or other products which may deteriorate insulation.
- G. Color coding: Color code all conductors in accordance with NEC as follows:
 - 1. Color code all wiring.
 - 2. Use following colors in lighting and power wiring:

	120/208 VOLT
Phase 1	Black
Phase 2	Red
Phase 3	Blue
Neutrals	White
Ground	Green

3. Isolated equipment grounding conductor: Green with one or more yellow stripe(s).
4. Color coding of ends only will be acceptable for feeder phase conductors.
5. Color coding of ends only will be acceptable for neutral and grounding conductors number 4 AWG and larger.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Lighting and receptacle home runs indicated are for identification purposes only.
- B. Install all line voltage wiring in conduit unless otherwise indicated.
- C. Install no more than 3 phase conductors in one conduit. This excludes ground wire. The neutral conductor shall be considered as a current carrying conductor.
- D. Two or three branch circuits may be carried on one neutral leg as permitted by NEC. See Section 16470 for circuits served by ground fault circuit interrupter circuit breakers.
- E. Run panelboard and motor feeders in individual conduits.

END OF SECTION